ABSTRACT

In order to improve road safety, modern vehicles are provided with sensor systems, which assist the driver of the vehicle either directly or indirectly with respect to the environment surrounding said vehicle, especially with regard to early recognition of dangerous situations, in addition to the usual illumination device. Said systems more particularly include radar systems for detecting distance and the relative speed of objects or night vision improvement systems which are based on illumination of the field of the road environment with infrared light. According to the invention, the illumination means of the illumination device are formed by an arrangement of a plurality of semiconductor light sources (2) grouped together to form a field. Sensor elements (3) are arranged at individual positions of said field instead of said semiconductor sources (2). A multifunctional headlight can thus be advantageously created. Said headlight can be embodied as a robust, compact, low-space unit. By virtue of the fact that the light sources (2) and the sensor elements (3) do not necessarily use the same lens system (1) i.e. each individual element of the multifunctional headlight can be provided with an individually designed lens system (1), the beam path of the illumination device can be separated from the field of vision of the sensor system and can thus be determined independently over large areas.